

IN THE CLAIMS:

Please amend claims 2, 4-10, 12, 15-17, 19, 21-23, 26, 27, 30, 31, 33, and 34, and cancel claims 20, 28, 29, and 32 without disclaimer or prejudice, as follows.

1. (Cancelled)
2. (Currently Amended) A telecommunications system according to claim 15, wherein the signals are indicative of the time taken for the signals to arrive at the ~~first and second receiving units~~ third and fourth locations from the first and second ~~transmitters~~ base stations.
3. (Cancelled)
4. (Currently Amended) A telecommunications system according to claim 15, wherein the ~~first and/or second receiving units are~~ mobile station is moveable ~~moved~~ between a plurality of locations including said third and fourth locations and is ~~and are~~ both arranged to receive a pair of signals when in each of the plurality of locations, the said pair of signals comprising a signal from the first ~~transmitter unit~~ base station and a signal from the second ~~transmitter unit~~ base station.
5. (Currently Amended) A telecommunications system according to claim 4, wherein a ~~said~~ two of said pairs of signals received by the ~~first receiving unit and a said pair of signals received by the second receiving unit~~ mobile station are together useable to calculate a range of possible locations of the second ~~transmitter unit~~ base station.
6. (Currently Amended) A telecommunications system according to claim 5, wherein the range of possible locations is in the form of a hyperbola in the X-Y plane in

which the second ~~transmitter unit~~ base station is located, the said hyperbola running through substantially the location of the second ~~transmitter unit~~ base station.

7. (Currently Amended) A telecommunications system according to claim 5, wherein in each of the plurality of locations the ~~first and second receiving units~~ mobile station receives pairs of signals which differ from those pairs of signals received when the ~~first and second receiving units are~~ mobile station is in others of the plurality of locations and the said different pairs of signals are together usable to calculate different ranges of possible locations of the second ~~transmitter unit~~ base station.

8. (Currently Amended) A telecommunications system according to claim 7, wherein the different ranges of possible locations substantially coincide at a single common location that is substantially the location of the second ~~transmitter unit~~ base station.

9. (Currently Amended) A telecommunications system according to claim 4, wherein, in any given location of the ~~first and second receiving units~~ mobile station, the pair of signals received by the ~~first receiving unit~~ mobile station is the same pair of signals that is received by the ~~second receiving unit~~ the mobile station at another location.

10. (Currently Amended) A telecommunications system according to claim 4, wherein in any given location of the ~~first and second receiving units~~ mobile station, the pair of signals received by the ~~first receiving unit~~ mobile station is a different pair of signals from the pair of signals received by the ~~second receiving unit~~ mobile station at another location.

11. (Previously Presented) A telecommunications system according to claim 4, wherein the plurality of locations is three locations.

12. (Currently Amended) A telecommunications system according to claim 15, wherein the signals received by the ~~first and second receiving units~~ mobile station are received in response to signals sent to the first and second ~~transmitter units~~ base stations by the ~~first and second receiving units~~ mobile station.

13. (Previously Presented) A telecommunications system according to claim 2, wherein the said signals are further indicative of their quality or accuracy.

14. (Cancelled)

15. (Currently Amended) A telecommunications system comprising:
a first ~~transmitter~~ base station unit situated at a first, known location;
a second ~~transmitter~~ base station unit situated at a second, unknown location;
a first ~~receiving unit at a third, known location~~ mobile station arranged to receive signals at a third, known location from the first and second transmitter units; and, once the mobile station has moved,
~~— a second receiving unit at a fourth, known location arranged to receive signals at a~~
fourth known location from the first and second ~~transmitter units~~ base stations, wherein the said signal received by at the ~~first and second receiving units~~ third and fourth locations are usable to ascertain the location of the second ~~transmitter unit~~ base station; wherein the ~~first and second receivers are the same entity.~~

16. (Currently Amended) A telecommunications system according to claim 15, wherein the ~~said same receiver entity~~ mobile station is arranged to act as a the ~~said first~~ receiver during a first period of time and as a the ~~said second~~ receiver during a second separate period of time.

17. (Currently Amended) A telecommunications system according to claim 15, wherein the ~~first and second receivers~~ mobile station is a mobile telephone.

18. (Original) A telecommunications system according to claim 17, wherein the said mobile telephone supports Enhanced Observed Time Difference (E-OTD) location method and Global Positioning System (GPS) location method, or Observed Time Difference Of Arrival (OTDOA) location method and Global Positioning System (GPS) location method.

19. (Currently Amended) A telecommunications system according to claim 15, wherein the first and second ~~transmitter units is~~ base stations are ~~a~~ cellular base stations.

20. (Cancelled)

21. (Currently Amended) A telecommunications system according to claim 15, wherein the second ~~transmitter unit~~ base station is in a fixed location.

22. A telecommunications system according to claim 15, further comprising a calculation unit arranged to use the signals received by the ~~first and second receiving units~~ mobile station or any values derived from the said signals to ascertain the location of the second ~~transmitter unit~~ base station.

23. A telecommunications system according to claim 22, wherein the calculation unit is arranged to take account of the indication of quality or accuracy when using the signals received by the ~~first and second receiving units~~ mobile station.

24. (Previously Presented) A telecommunications system according to claim 22, located within a telecommunications network, wherein the calculation unit is a network management unit.

25. (Previously Presented) A telecommunications system according to claim 22, located within a telecommunications network, wherein the calculation unit is a Serving Mobile Location Centre.

26. (Currently Amended) A telecommunications system comprising:
a first ~~transmitter unit~~ base station situated at a first, known location;
a second ~~transmitter unit~~ base station situated at a second, unknown location;
~~— a first receiving unit at a third, known location arranged to receive signals from the first and second transmitter units;~~
~~— a second receiving unit at a fourth, known location arranged to receive signals from the first and second transmitter units, wherein the said signal received by the first and second receiving units are usable to ascertain the location of the second transmitter unit; and~~
a mobile station arranged to receive signals at a third, known location from the first and second transmitter unit; and, once the mobile station has moved, to receive signals at a fourth known location from the first and second base stations, wherein the signals received at the third and fourth locations are usable to ascertain the location of the second base station; and,
a calculation unit arranged to use the signals received by the ~~first and second receiving units~~ at the third and fourth locations or any values derived from the ~~said signals to ascertain the location of the second transmitter unit~~ base station; and,
wherein the calculation unit is arranged to verify the accuracy of the ascertained location of the second ~~transmitter unit~~ base station by comparing it with location information of the second ~~transmitter unit~~ base station obtained from other sources;

~~wherein the first and second receivers are the same entity.~~

27. (Currently Amended) A telecommunications system comprising:
a first ~~transmitter unit~~ base station situated at a first, known location;
a second ~~transmitter unit~~ base station situated at a second, unknown location; and
a first receiving unit at a third, known location arranged to receive signals from the
first and second transmitter units; and
~~a second receiving unit at a fourth, known location arranged to receive signals~~
~~from the first and second transmitter units, wherein the said signal received by the first~~
~~and second receiving units are usable to ascertain the location of the second transmitter~~
~~unit;~~
a mobile station arranged to receive signals at a third, known location from the first and
second transmitter unit; and, once the mobile station has moved, to receive signals at a
fourth known location from the first and second base stations, wherein the said signal
received at the third and fourth locations are usable to ascertain the location of the second
base station; and

wherein the ascertained location of the second ~~transmitter unit~~ base station is
usable to check the accuracy of identification information of the second ~~transmitter unit~~
base station obtained ~~from~~ from other sources and thus identify the second ~~transmitter~~
base station;

~~wherein the first and second receivers are the same entity.~~

28-29. (Cancelled)

30. (Currently Amended) A method of determining the location of a ~~transmitter~~
~~unit~~ base station in a telecommunications system, the method comprising ~~the steps of:~~
receiving signals at a ~~first receiving unit~~ mobile station situated at a first, known
location from a first ~~transmitter unit~~ base station situated at a second, known location and

from a second ~~transmitter-unit~~ base station situated at a third, unknown location, and determining the time difference between the arrival times of a signal from the first ~~transmitter-unit~~ base station and a signal from the second ~~transmitter-unit~~ base station;

receiving signals at a ~~second-receiving-unit~~ the mobile station situated at a fourth, known location from the said first ~~transmitter-unit~~ base station and from the said second ~~transmitter-unit~~ base station and determining the time difference between the arrival times of a signal from the first ~~transmitter-unit~~ base station and a signal from the second ~~transmitter-unit~~ base station; and

using the time differences determined, to ascertain the location of the second ~~transmitter-unit~~ base station;

—wherein the first and second receivers are the same entity.

31. (Currently Amended) A method of determining the location of a ~~transmitter-unit~~ base station in a telecommunications system, the method comprising the steps of:

receiving signals at a ~~first-receiving-unit~~ mobile station situated at a first, known location from a first ~~transmitter-unit~~ base station situated at a second, known location and from a second ~~transmitter-unit~~ base station situated at a third, fixed, unknown location and determining the time difference between the arrival times of a signal from the first ~~transmitter-unit~~ base station and a signal from the second ~~transmitter-unit~~ base station;

receiving signals at a ~~second-receiving-unit~~ the mobile station situated at a fourth, known location from the said first ~~transmitter-unit~~ base station and from the said second ~~transmitter-unit~~ base station and determining the time difference between the arrival times of a signal from the first ~~transmitter-unit~~ base station and a signal from the second ~~transmitter-unit~~ base station; and

using the time differences determined to ascertain the location of the second ~~transmitter-unit~~ base station;

—wherein the first and second receivers are the same entity.

32. (Cancelled)

33. (Currently Amended) A calculation unit for use in a telecommunications system comprising:

a first ~~transmitter unit~~ base station situated at a first, known location;
a second ~~transmitter unit~~ base station situated at a second, unknown location; and
a first ~~receiving unit~~ at a third, known location a mobile station arranged to receive signals at a third known location from the first and second ~~transmitter units~~ base stations; and further arranged to determine the time difference between the arrival times of a signal from the first ~~transmitter unit~~ base station and a signal from the second ~~transmitter unit~~ base station; and
—— a second ~~receiving unit~~ at a fourth, known location wherein, once the mobile station has moved, it is arranged to receive signals at a fourth, known location from the first and second ~~transmitter units~~ base stations, and further arranged to determine the time difference between the arrival time of a signal from the first ~~transmitter unit~~ base station and a signal from the second ~~transmitter unit~~ base station;

wherein the calculation unit is arranged to use the time differences between the arrival times of signals from the first and second ~~transmitter units~~ base stations as determined by the first and second ~~receiving units~~ at the third and fourth locations to ascertain the location of the second ~~transmitter unit~~ base station;

—— wherein the first and second receivers are the same entity.

34. (Currently Amended) A computer program embodied on a computer readable medium for use in a telecommunications system, wherein the telecommunication system includes comprising:

a first ~~transmitter unit~~ base station situated at a first, known location;
a second ~~transmitter unit~~ base station situated at a second, unknown location; and

~~aa first receiving unit at a third, known location~~ mobile station arranged to receive signals at a third, known location from the first and second ~~transmitter units~~ base stations; and further arranged to determine the time difference between the arrival times of a signal from the first ~~transmitter unit~~ base station and a signal from the second ~~transmitter unit~~ base station; and

~~a second receiving unit at a fourth, known location~~ wherein the mobile station is arranged to receive signals at a fourth, known location from the first and second ~~transmitter units~~ base stations, and further arranged to determine the time difference between the arrival time of a signal from the first ~~transmitter unit~~ base station and a signal from the second ~~transmitter unit~~ base station;

~~wherein the computer program is arranged~~ configured to use the time differences between the arrival times of signals from the first and second ~~transmitter units~~ base stations as determined ~~by the first and second receiving units~~ at the third and fourth locations to ascertain the location of the second ~~transmitter unit~~ base station;

~~wherein the first and second receivers are the same entity.~~